

A REMARKABLY LARGE NEW SPECIES OF *DISCOCORIS* FROM COLOMBIA (HETEROPTERA: THAUMASTOCORIDAE)

JAMES A. SLATER¹ AND RANDALL T. SCHUH²

¹Department of Ecology and Evolutionary Biology, University of Connecticut,
Storrs, Connecticut 06268, and

²Department of Entomology, American Museum of Natural History,
New York, New York 10024

Abstract.—*Discocoris imperialis*, recorded as occurring on the infructescences of the palm *Socratea montana* R. Bernal & A. Henderson, and of nearly twice the length of previously known species of the genus, is newly described from Colombia. Scanning electron micrographs are presented of the pretarsus, head, and nymphal abdominal scent glands.

The family Thaumastocoridae has for many years been a subject of special interest to hemipterists because of its unusual distribution (Australia-India-Western Hemisphere) and the difficulty of understanding its systematic relationships to other families of Cimicomorpha.

Drake and Slater (1957) reviewed the classification and systematic position of the Thaumastocoridae. Slater and Brailovsky (1983), in reviewing the South American taxa, refuted Viana and Carpintero's (1981) proposal to elevate the new world Xylastodorinae, containing the genera *Xylastodoris* Barber and *Discocoris* Kormilev, to family level and returned it to subfamily status. [See Slater and Brailovsky (1983) for use of this subfamily spelling.]

The single species of *Xylastodoris* is known only from Cuba and southern Florida. *Discocoris* was heretofore known from four South American species.

Western Hemisphere thaumastocorids are rarely collected, presumably because of their relative inaccessibility on their palm hosts. Thus any additions to our knowledge of the group are important. *Xylastodoris luteolus* Barber is known to feed on the newly developing fronds of the royal palm, *Roystonea regia* (HBK) O. F. Cook (Baranowski, 1958). Species of *Discocoris* for which host information is available feed on the infructescences of palms (Schuh, 1975).

The species described below is of special interest because of its relatively great size, and because its discovery affords an opportunity to study the immatures with accompanying host data.

***Discocoris imperialis*, new species**

Diagnosis. This is a relatively gigantic thaumastocorid, nearly twice the length and several times the bulk of any previously known species. In the key to *Discocoris* species of Slater and Brailovsky (1983), it will run to couplet 1 with *D. kormilevi* Viana and Carpintero because of the great forward expansion of the anterolateral portions of the pronotum. It also agrees with *D. kormilevi* in having the ocelli placed considerably behind the posterior margins of the compound eyes. Slater and Brailovsky (1983) suggested that the other species of *Discocoris* have the ocelli located

on a line with the posterior margin of the eyes. This is not true of *D. drakei* Slater & Ashlock, which also has an anteriorly tapering tylus.

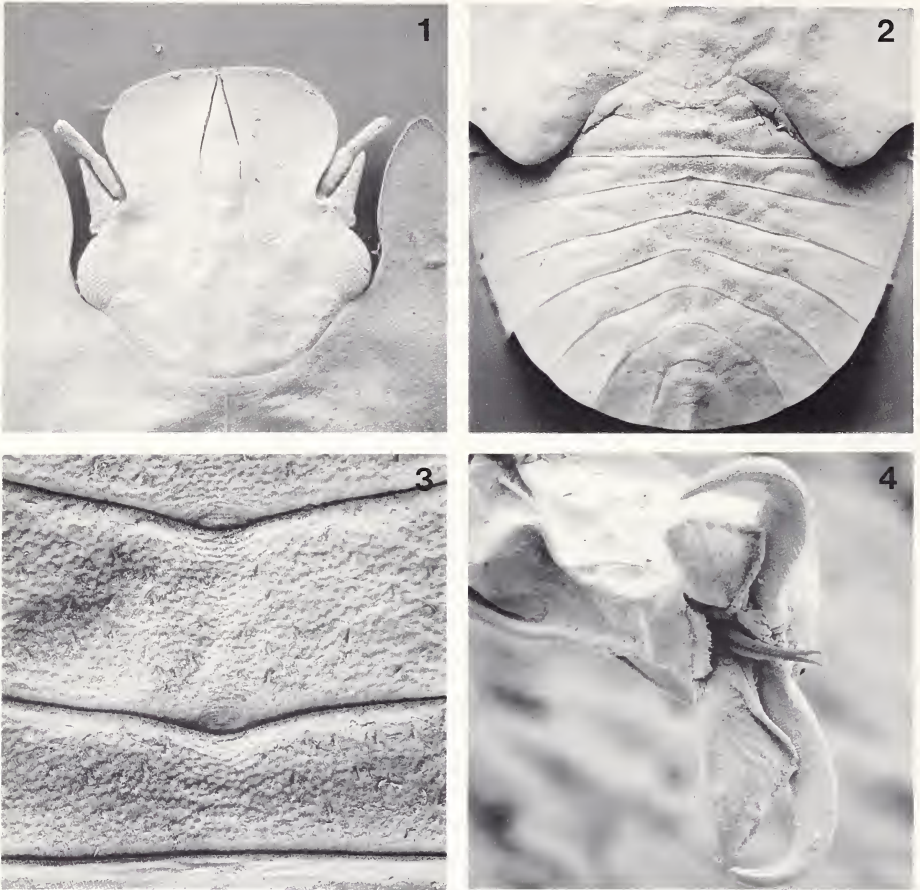
Description. Female. COLORATION, VESTITURE, AND SURFACE TEXTURE. Very broadly ovate. General coloration light testaceous, shading to reddish brown over almost entire head (except anterior portions of juga), mesal area of pronotum, and central area of scutellum and hemelytra. Eyes red. Marked with chocolate brown on posterior margin of pronotum before base of clavus, on distal ends of clavus, and antocular head spines. Corial cells spotted with large irregular brown blotches. Pronotum with an incomplete pale median stripe.

Entire dorsum with large coarse nonanastomosing brown punctures, these becoming increasingly small laterally on pronotal and corial flanging expansions. Clavus with 3 rows of punctures. Entire body surface nearly glabrous, minute hairs present laterally.

STRUCTURE AND MEASUREMENTS. Head broad, non-declivent. Juga arcuate, expanded laterally from base to level of middle of tylus, almost meeting mesally, extending forward same distance as tylus. Tylus strongly tapering anteriorly to terminate in a blunt "point." Eyes strongly protruding but not stalked. An elongate, acute, slightly curved spine (antenniferous tubercle) arising at anterior margin of eye and extending anterolaterad to level of distal end of first antennal segment. Ocelli positioned near base of head, far behind posterior margins of compound eyes.

Total body length 4.64 mm. Length of head 0.92 mm, width 1.10 mm, interocular space 0.70 mm, maximum distance across juga 0.80 mm. Pronotum with anterior margin very deeply concave, expanded laterally and produced forward beyond eyes, lateral margins angulate with greatest width at middle of pronotum, a few small teeth present along lateral edge: median length 0.82 mm, maximum width 2.84 mm, maximum length 1.40 mm, width across base 2.40 mm. Scutellum shallowly convex lacking a median elevation, length 0.82 mm, width 1.26 mm. Length of claval commissure 0.30 mm. Corium broadly, ovately rounded, asymmetrical, maximum width near anterior end; veins elevated, forming closed cells, lateral margins lacking small teeth, maximum width near anterior end; length 3.04 mm, median distance (apex of clavus to apex of corium) 1.80 mm, maximum width across hemelytra 3.60 mm. Bucculae low anteriorly becoming increasingly less elevated posteriorly, buccal cavity open throughout length, extending nearly to base of head, exceeding second labial segment posteriorly. Meso- and metasternum with a deep median furrow. Forefemora moderately incrassate, mutic. Labium very long extending to fourth (3rd visible) abdominal sternum, second segment remote from base of head, third segment reaching middle of mesosternum; length of labial segments (in mm) I 0.20, II 0.30, III 1.08, IV 1.20. Length of antennal segments (in mm) I 0.20, II 0.20, III and IV missing. Ovipositor completely wanting.

Fifth-instar nymph. Body extremely flattened, concave below, almost "scalelike," broadly ovate, nearly hemispherical. Light testaceous. Head shape much as in adult, but juga exceeding tylus and almost in contact anterior to apex of tapered tylus (Fig. 1). Elongate spine anterior to eye straight, with outer edge of base expanded as a blunt projection (Fig. 1). Length of head 0.86 mm, width 1.00 mm, interocular space 0.68 mm. Pronotum produced forward beyond eyes to area of maximum width of juga, most of head being immersed beneath enormously expanded arcuate anterior pronotal projections (Fig. 1): median length 0.52 mm, maximum length 1.24 mm,



Figs. 1-4. *Discocoris imperialis*. 1. Dorsal view of head of fifth-instar nymph (62 \times). 2. Abdominal tergum of fifth-instar nymph (35 \times). 3. Detail of abdominal scent gland opening of fifth-instar nymph (200 \times). 4. Pretarsus (722 \times).

maximum width 2.50 mm; posterior margin straight. Mesothoracic wing pads broadly arcuate, but curved mesad at almost a right angle at distal third of outer margin, tapering to rounded apex in an almost sigmoid curve. Wing pads barely extending over anterior portion of abdominal tergum three, length 1.08 mm, maximum width across pads 2.80 mm. Abdomen with a minute scent gland opening between abdominal terga 3-4 and 4-5 (Figs. 2, 3). All abdominal terga from anterior margin of segment 4 through segment 9 sloping anteriorly from lateral margins to meson, with increasing curvature successively on each segment posteriorly to apex of abdomen (Fig. 3). Labium extending caudad onto abdominal sternum 4; length of segments (in mm) I 0.18, II 0.20, III 0.94, IV 1.0. Antennae as in adult. Pretarsus as in Figure 4.

Fourth-instar nymph. Similar in shape and color to fifth instar, but with wing pads scarcely covering tergum 1 and labium extending caudad onto abdominal sternum 6.

Holotype. Female, COLOMBIA: *Medellin*: near El Nueve, Quibdo Road, at 1,150 m. Henderson & Bernal, on infructescence of *Socratea montana* R. Bernal & A. Henderson (Palmae); deposited in the American Museum of Natural History, New York.

Additional specimens. Same data as holotype, 14 fifth-instar nymphs, 1 fourth-instar nymph, 3 third-instar nymphs; deposited in the American Museum of Natural History.

ACKNOWLEDGMENTS

We thank Andrew Henderson of the New York Botanical Garden, Bronx, New York, for making the specimens available for study.

LITERATURE CITED

- Baranowski, R. M. 1958. Notes on the biology of the royal palm bug, *Xylastodoris luteolus* Barber (Hemiptera, Thaumastocoridae). *Ann. Entomol. Soc. Am.* 51:547-551.
- Drake, C. J. and J. A. Slater. 1957. The phylogeny and systematics of the family Thaumastocoridae (Hemiptera: Heteroptera). *Ann. Entomol. Soc. Amer.* 50:353-370.
- Schuh, R. T. 1975. Wing asymmetry in the thaumastocorid *Discocoris drakei* (Hemiptera). *Rev. Peruana Entomol.* 18:12-13.
- Slater, J. A. and H. Brailovsky. 1983. The systematic status of the family Thaumastocoridae with the description of a new species of *Discocoris* from Venezuela (Hemiptera: Heteroptera). *Proc. Entomol. Soc. Wash.* 85:560-563.
- Viana, M. J. and D. J. Carpintero. 1981. Una nueva especie de "Discocoris" Kormilev, 1955 (Hemiptera, Xylastodoridae). *Comun. Mus. Argent. Cienc. Nat. "Bernardino Rivadavia"* Entomol. 1(4):63-74.

Received 26 February 1990; accepted 21 May 1990.